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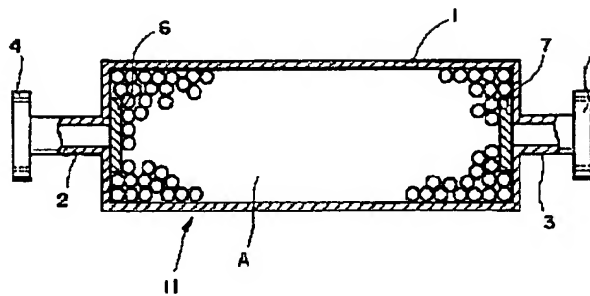
APPLICATION DATE : 31-03-94
APPLICATION NUMBER : 06063683

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TITLE : METHOD FOR PURIFYING
PHOSPHINE AND APPARATUS
THEREFOR



ABSTRACT : PURPOSE: To provide a method for purifying phosphine by which an oxo acid of phosphorus in the phosphine is removed and a compound semiconductor capable of manifesting excellent device performances can be obtained by bringing an unpurified phosphine into contact with a purifying agent prepared by carrying out the activating treatment of a porous agent.

CONSTITUTION: This method for purifying phosphine is to heat a porous agent such as zeolite or a porous polymer resin at 150-300°C, pass an inert gas such as argon, nitrogen or helium therethrough or bring the inert gas into contact therewith, fill the resultant activated purifying agent (A) in a column 1 made of stainless steel, reduce the temperature of the resultant purifier 11 to -85 to +25°C (about 0°C), flow an unpurified phosphine from an inflow pipe 2 to a discharge pipe 3, bring the purifying agent (A) into contact with the unpurified phosphine, separate the phosphine and an oxo acid of phosphorus by utilizing a difference in vapor pressure and trap only the oxo acid of the phosphorus in the purifying agent (A). Thereby, the high-purity phosphine removed from the oxo acid of the phosphorus such as hypophosphoric acid, phosphorous acid or orthophosphoric acid is obtained.

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